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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,657	04/06/2006	Shoichi Miyawaki	48914	1367

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EXAMINER

KINNEY, ANNA L

ART UNIT PAPER NUMBER

1731

DATE MAILED: 06/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/533,657	Applicant(s) MIYAWAKI ET AL.	
	Examiner Anna Kinney	Art Unit 1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 05 May 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 5-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/5/05</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 recites the limitation "solids by weight on the basis of pulp solids", referring to reducing agents, peroxides, and hydrogen-donating organic compounds. The Examiner considers the first reference to solids relatively meaningless with respect to hydrogen peroxide, since there is no indication that the applicant intended to freeze the compound prior to application, and hydrogen peroxide is a liquid at standard room temperature. Therefore, the application rate is rendered indefinite.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 5, 6, 9-10, and 12-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamada Nobuo (JP 6-128890, Abstract provided by applicant).

With respect to claim 5, Yamada Nobuo discloses a method for improving discoloration in pulp characterized in that a pulp containing a bleached mechanical pulp

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(Translation, ¶ 0007, lines 1-2) is irradiated with UV light in the presence of a peroxide or hydrogen-donating organic compounds (Abstract, lines 1-2; and Translation, ¶ 0007, lines 18-22).

With respect to claim 6, Yamada Nobuo discloses that the method is aimed at all pulp, including chemical and recycled pulp. All pulp inherently includes one or more of bleached semi-chemical pulp, bleached chemical pulp and bleached deinked pulp.

With respect to claims 9 and 10, Yamada Nobuo discloses that hydrogen peroxide is used in the range of 1-3%, which contains 2 specific points within the claimed range of 0.05 to 50%, by weight on the basis of pulp solids.

Claims 12-14 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yamada Nobuo, as applied to the 35 USC 102(b) rejections of claims 5 and 6, above.

With respect to claims 12-14, these claims are a product by process. See MPEP § 2113. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself (i.e., differences in product characteristics), and not on its method of production. In the present instance, all that is claimed is a pulp with improved discoloration, which is shown by Yamada Nobuo. Therefore, the Examiner can discern no significant differences between the claimed products and the product of Yamada Nobuo.

In the event any differences can be shown for the product of the product-by-process claims 12-14, as opposed to the product taught by the reference Yamada Nobuo, such differences would have been obvious to one of ordinary skill in the art as a

routine modification of the product in the absence of a showing of unexpected results;  
see also *In re Thorpe*, 227 USPQ 964 (Fed. Cir. 1985).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7, 8, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada Nobuo, as applied in the 35 USC 102(b) rejection of claims 5 and 6, in view of Oouchi Akihiko (JP 2002-088673 A).

With respect to claims 7 and 8, Yamada Nobuo does not disclose expressly that the light is laser light.

Oouchi Akihiko discloses a method for treating pulp with ultraviolet and visible light and with hydrogen peroxide, and discloses that the light is laser light (claim 1).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use laser light as described by Oouchi Akihiko as the source of ultraviolet light in the irradiation method of Yamada Nobuo to obtain the invention as specified in claims 7 and 8.

The motivation would have been that, compared with conventional ultraviolet and visible light, laser light remarkably accelerates the achromatization reaction of coloring matter (Oouchi Akihiko Translation, ¶ 0008, lines 9-13).

With respect to claim 11, Yamada Nobuo is applied as in the rejections to claims 9 and 10, above.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The International Search Report (and the applicant's IDS), cited WO 84/00181 A, JP 2002-88671 A, and JP 2002-88672 A, as X references. The Examiner determined that the references used in the rejections above, which were also identified as X references in the Search Report, were adequate without using these additional X references.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anna Kinney whose telephone number is (571) 272-8388. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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